SITE ASSESSMENT REPORT
FOR
THE NORWOOD DRUM SITE
TOLEDO, LUCAS COUNTY, OHIO

Prepared for:

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region V
Emergency Response Branch
9311 Groh Road
Grosse Ile, Michigan 48138

Prepared by:

WESTON SOLUTIONS, INC.
6779 Engle Road, Suite I
Middleburg Heights, Ohio 44130

Date Prepared	July 11, 2008
TDD Number	S05-0001-0805-015
Document Control Number	454-2A-ACFE
Contract Number	EP-S5-06-04
START Project Manager	TJ McFarland
Telephone No.	(440) 202-2802
U.S. EPA On-Scene Coordinator	Jon Gulch

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July 11, 2008

Prepared by: _____ Date
Lori Ambrosio
WESTON START Site Lead

Prepared by: _____ Date
TJ McFarland
WESTON START Project Manager

Approved by: _____ Date
Pamela Bayles
WESTON START Program Manager

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July 11, 2008

Mr. Jon Gulch
United States Environmental Protection Agency
9311 Groh Road
Grosse Ile, Michigan 48138

Re: Norwood Drum Site
Toledo, Lucas County, Ohio
TDD: S05-0001-0805-015
DCN: 454-2A-ACFE
WO#: 20405.012.001.0454.00

Dear Mr. Gulch:

The United States Environmental Protection Agency (U.S. EPA) tasked the Weston Solutions, Inc., (WESTON®) Superfund Technical Assessment and Response Team (START) to assist U.S. EPA On-Scene Coordinator (OSC) in performing a site assessment at the Norwood Drums Site (Site) located in Toledo, Lucas County, Ohio (Figure A-1). Under Technical Direction Document (TDD) number S05-0001-0805-015, U.S. EPA requested that WESTON START conduct a site assessment including assessing and sampling unknown containers, perform air monitoring, collecting photographic documentation, and evaluating the potential for imminent and substantial threats to human health, welfare, and the environment posed by the Site. On June 4, 2008, WESTON START conducted a site assessment under the direction of OSC Jon Gulch.

SITE DESCRIPTION

The Site, located at 1678 Norwood Avenue, Toledo, Lucas County, Ohio is in a mixed residential, commercial and industrial area (Figure A-1). The Site consists of a two-story warehouse building (Facility) located on approximately one acre on the west side of Toledo, Ohio (Figure A-2). The facility consists of storage space on the first floor and office space on the second floor. The Site is bounded to the north by an open lot and Oakwood Avenue, to the east by Norfolk Southern railroad tracks and an open lot, to the south by Norwood Avenue and industrial properties, and to the west by Clinton Street and an unnamed tire and automotive service facility.

BACKGROUND

The Site consists of a warehouse facility that is currently used to store, mix, and repackage various materials, including Paracril (a synthetic nitrile rubber and plasticizer). Mr. Charles Oswald owns the property and performs mixing and repackaging operations within the facility under the Norwood Industries company name. According to Mr. Oswald, Norwood Industries obtains empty drums and containers from a variety of sources and uses them to repackage materials for relocating businesses and other clients. Mr. Oswald also indicated that Norwood Industries stores materials for clients. Mr. Oswald has owned and operated within the facility since 1977 and has accumulated various drums and small containers at the Site. In addition to operations conducted by Norwood Industries, Mr. Oswald also utilizes another warehouse facility in Toledo to store and repackage materials.

The second warehouse facility, located at 4301 Creekside Avenue, Toledo, Lucas County, Ohio, consists of a five-story warehouse facility, one-story outlying building, and five semi-truck trailers used to store various materials. Mr. Oswald leases the second warehouse facility from Mr. Drew Hoffer of Jachs, Inc., and performs storage and repackaging operations under the Cretecote, LLC, company name. It is unknown how long Mr. Oswald has leased and operated within the second warehouse facility. Mr. Oswald has accumulated various drums and small containers at the Cretecote Site. Many of the drums and small containers stored at the Norwood Site contain the same materials as those stored at the Cretecote Site. The Cretecote Site is currently the focus of a separate U.S. EPA removal action site assessment; additional information regarding the Cretecote site can be found in the Site Assessment Report for the Cretecote Drum Site (Document Control Number [DCN] 456-2A-ACFF.)

The City of Toledo Division of Environmental Services (Toledo DES), City of Toledo Fire Department, and Ohio Environmental Protection Agency (Ohio EPA) have conducted numerous inspections at the Site and are concerned with the volume and types of containerized materials stored within the warehouse facility. On April 5, 2005, and May 19, 2005, the Toledo DES responded to complaints of a thick substance leaking through the walls of the building and onto the soil. This material was determined to be Paracril that had spilled onto the floor during mixing and repackaging

operations within the building. A building inspection conducted by the City of Toledo following the initial complaint response required Mr. Oswald to repair the roof and walls along the west side of the building. The City of Toledo Fire Department placarded the facility as a "Code Red" indicating that fire fighters should not approach or enter the building if responding to a fire. From November 14, 2007, to November 30, 2007, Toledo DES responded to complaints of illegal dumping and conducted inspections at the Norwood Site and Cretecote Site. During the November 30, 2007, inspection conducted at the Norwood Site, the Toledo DES observed that the same Paracril material observed during the 2005 inspections was still leaking through the walls of the building and onto the soil. On December 6, 2007, the Toledo DES submitted information requests to Mr. Oswald regarding the Cretecote Site and Norwood Site. The letters requested a list of materials stored at the Cretecote and Norwood sites and their respective quantities. On December 19, 2007, the Toledo DES, City of Toledo Fire Department, and Ohio EPA conducted a joint inspection of the Site and found numerous drums and containers throughout the Site. In May 2008, the Ohio EPA requested assistance from the U.S. EPA Region 5 Emergency Response Branch in performing a removal action site assessment to evaluate the potential threats to human health, welfare, and the environment posed by the Site.

SITE ASSESSMENT ACTIVITIES

On June 4, 2008, U.S. EPA OSC Jon Gulch and U.S. EPA Keith Lesniak along with WESTON START members Lorie Ambrosio, Matt Beer, and TJ McFarland mobilized to the Site. After a brief safety meeting and equipment set-up, U.S. EPA and WESTON START personnel walked through the Site to perform initial air monitoring and radiation screening, develop a sampling strategy, and conduct an inventory of drums and small containers.

During the site reconnaissance, WESTON START conducted written and photographic documentation of the current Site conditions and noted potential environmental threats and sampling locations. WESTON START documented a large quantity of drums and small containers, several pallets of bagged materials, boxed photovoltaic tubes, and debris and general refuse throughout the

building. The volume and haphazard placement of debris and general refuse within the building limited access. Narrow walkways had been created through stacked debris, drums, small containers, pallets, and general refuse, but WESTON START was unable to access all areas and unable to identify all drums and small containers. WESTON START also documented a large volume of Paracril material spilled onto the floor in the southwest corner of the building, in the mixing and repackaging area. The following hazards were identified during site reconnaissance activities:

- uncontrolled, unlabled waste material in drums and small containers
- uncontrolled, unlabeled waste material in open and leaking containers
- uncontrolled, unlabeled waste material on the floor inside the facility
- uncontrolled, unlabeled waste material leaking out of the facility and onto the soil
- unorganized debris and general refuse throughout the building
- drums and small containers buried under debris
- drums and small containers haphazardly placed atop debris
- drums and pallets haphazardly stacked to an unsafe height
- unrestricted access to the facility as the site is not fenced
- Close proximity to residential properties located to the west and east of the site and other vulnerable areas such as a day care facilities, an elementary school, and a park
- likely presence of at-risk human populations, including children and the elderly, in close proximity to the Site

The warehouse facility appeared to be in fair condition. A new roof was installed on the west side of the building, following a building inspection conducted in 2005. Throughout the rest of the warehouse facility, there was some roof and window damage and evidence of water leaking into the building was observed during the site assessment. . An open portion of the property was fenced in along the east side of the warehouse facility, along the railroad tracks. Access to the warehouse facility is somewhat restricted, but Mr. Oswald indicated that unauthorized access to the property and the warehouse facility has occurred.

WESTON START performed radiation screening within the warehouse facility with a Ludlum Micro-R radiation meter, which returned no elevated readings. A MultiRAE multi-gas air monitor and ammonia and hydrogen cyanide ToxiRAE single gas monitors were used to monitor the breathing zone inside the warehouse facility. All air monitoring readings were at or below background levels. WESTON START also utilized a personal dataRAM (PDR) to monitor the particulate levels within the warehouse facility. All particulate readings were at or below background levels.

WESTON START personnel logged 2,047 drums located throughout the warehouse facility and documented drums labeled "Chocolate Predip", "Bayflex 1000 Component", "Urethane Foam Component B", "Niax Resin", "Component Poly Ether Aliphatic Amine & Aromatic", "harmful if inhaled", "avoid breathing", "Formaldehyde", "Orange Juice Concentrate", "Desiccite", "flammable", "Xylene", "Turpentine", "corrosive", "Interpak Component A", "Interpak Component B", "Toluene Isocyanate", "Tetrasodium Salt of Ethylene Diamine Tetra Acetic Acid", and other materials. A small lab and office area located along the south wall of the facility contained various small containers. One of the small containers was labeled "Uro-Tuf" and had a warning label that stated that it contained a chemical known by the State of California to cause reproductive harm and birth defects.

SAMPLING ACTIVITIES

Based on the review of site observations and documentation, the OSC directed WESTON START to collect five drum samples and one solid sample of the Paracril on the floor that was leaking through the building walls. WESTON START personnel donned Level B personnel protective equipment for the sampling event. The drum liquids were sampled using disposable drum thieves and the solid Paracril was sampled using disposable plastic scoops. All samples were placed into eight-ounce glass sample jars provided by the laboratory. WESTON START performed limited hazard characterization (HazCAT) on each of the samples in order to determine which laboratory analyses were most appropriate. The START sample identification numbers are as follows:

- ND-WL001-060408
- ND-WL002-060408
- ND-WL003-060408
- ND-WL005-060408
- ND-WL006-060408
- NW-WS001-060408 (Duplicate)

Note: WL – Waste Liquid, WS – Waste Solid

Sample ND-WL001-060408 was collected from a drum labeled "Component Poly Ether Aliphatic Amine & Aromatic". Sample ND-WL002-060408 was collected from a drum labeled "harmful if inhaled". ND-WL003-060408 was collected from a drum labeled "Interpak 40W Component B". ND-WL005-060408 was collected from small container labeled "Xylene". ND-WL006-060408 was collected from a small container labeled "flammable". Samples ND-WS001-060408 and ND-WS001-060408D (duplicate) were collected from spilled Paracril material on the floor of the building. All samples were labeled and submitted to EA Group, Mentor, Ohio, for laboratory analysis, including total volatile organic compounds (VOC), toxicity characteristic leaching procedure (TCLP) metals, corrosivity (pH), flash point, and/or total cyanide.

ANALYTICAL RESULTS

Analytical data tables are provided in Attachment B and the laboratory analytical report is provided in Attachment D. The following list of samples returned the analytical results discussed in the subsequent paragraph.

- ND-WL001-060408
- ND-WL002-060408
- ND-WL003-060408
- ND-WS001-060408
- ND-WS001-060408D (Duplicate)

The above samples were analyzed for corrosivity (pH), and results ranged from 4.3 to 11.9 standard units (su). These results indicate pH levels that are within the regulatory limits for corrosivity (2-12.5 su).

The following list of samples returned the analytical results discussed in the subsequent paragraph.

- ND-WL005-060408
- ND-WL006-060408

The above samples were analyzed for flashpoint. Results for sample ND-WL005-060408 indicated a flash point of less than 50 degrees Fahrenheit (°F). Results for sample ND-WL006-060408 indicated a flash point of 92°F. These results indicate flash point levels that are below the regulatory limits for ignitability of 140°F and are considered to be a hazardous material.

The following list of samples returned the analytical results discussed in the subsequent paragraph.

- ND-WL001-0604008
- ND-WL002-060408
- ND-WS001-060408
- ND-WS001-060408D (Duplicate)

The above samples were analyzed for total VOCs and indicated elevated levels of VOCs above the laboratory reporting limits. Results for sample ND-WL001-060408 indicated levels of methyl chloride at 14 milligrams per kilogram (mg/kg) and toluene at 17 mg/kg. Results for sample ND-WL002-060408 indicated levels of ethylbenzene at 310 mg/kg and xylenes at 1,200 mg/kg. Results for samples ND-WS001-060408 and ND-WS001-060408D (duplicate) indicated levels of toluene at 190 mg/kg and trichloroflyoroethane at 310 mg/kg.

The following list of samples returned the analytical results discussed in the subsequent paragraph.

- ND-WL001-060408
- ND-WL002-060408
- ND-WL003-060408

- ND-WS001-060408
- ND-WS001-060408D (Duplicate)

The above samples were analyzed for TCLP metals. Results indicated levels of TCLP metals below the laboratory reporting limit for all of the samples and within the regulatory limits for toxicity.

The following list of samples returned the results discussed in the subsequent paragraph.

- ND-WL003-060408
- ND-WS001-060408
- ND-WS001-060408D (Duplicate)

The above samples were analyzed for total cyanide. Results indicated levels of total cyanide below the laboratory reporting limit for all of the samples and within the regulatory limits for reactivity.

THREATS TO HUMAN HEALTH AND THE ENVIRONMENT

Factors to be considered in determining the appropriateness of a potential removal action at a Site are delineated in the National Oil and Hazardous Material Contingency Plan at 40 *Code of Federal Regulations* (CFR) 300.415(b)(2). A summary of the factors applicable to this Site is presented below.

- **Actual or potential exposure of nearby human populations, animals, or the food chain to hazardous substances, pollutants, or contaminants**

Results of sampling conducted in conjunction with this site assessment identified ignitable materials in two containers. Pursuant to 40 CFR 261.21 (a)(1), these materials are considered hazardous based on the Resource Conservation and Recovery Act (RCRA) characteristic of ignitability, which states: "a solid waste exhibits the characteristic of ignitability if a representative sample of the waste ...is a liquid, other than an aqueous solution containing less than 24 percent alcohol by volume and has flash point less than 60°C (140°F), as determined by the Pensky Martens Closed Cup Tester..." Samples ND-WL005-060408 and ND-WL006-060408 had flash point results less than 140°F. Sampling results identified elevated levels of VOCs in material on the floor and in two drums at the

Site. Samples ND-WL001-060408, ND-WL002-060408, ND-WS001-060408, and ND-WS001-060408D (duplicate) exhibited elevated concentrations of ethylbenzene, toluene, and/or xylenes. Although sampling results identified no materials considered to be hazardous based on the RCRA characteristic of corrosivity, START observed drums labeled "corrosive" that were inaccessible at the time of this site assessment.

The volume and haphazard placement of debris and general refuse within the building limited access to all parts of the building. Narrow walkways had been cleared through the assortment of debris, drums, small containers, pallets, and general refuse, but WESTON START was unable to access all areas and unable to identify all drums and small containers. It is possible, based on the results from the June 4, 2008, sampling, that some of the inaccessible, unidentifiable drums and small containers within the warehouse facility contain hazardous substances. In addition, WESTON START identified hazardous substances at the Cretecote Site through separate site assessment activities. Due to the fact that Mr. Oswald performs operations at both warehouse facilities, and some of the same materials were identified at both of the Sites, it is possible that hazardous substances found at the Cretecote Site could also be stored at this Site.

According to the Lucas County local emergency planning committee (LEPC), there are 3,382 homes, one day care, one elementary school, and one park located within a one-mile radius of the Site. Access to the property is unrestricted and trespassers could contact hazardous materials located in drums, small containers, and on the floor. Trespassers could also cause the accidental or intentional release of hazardous materials stored at the Site. The close proximity of residences and other vulnerable areas immediately surrounding the Site would greatly increase the likelihood of human health and environmental risks should a release occur.

- **Actual or potential contamination of drinking water supplies or sensitive ecosystems.**

Although no floor drains were observed within the warehouse facility. It is possible that spilled material within the building could be released into storm sewer catch basins along Clinton Street and Norwood Avenue. This material would migrate through the storm sewer to its discharge point,

presumed to be located along the nearest open water body. The nearest major water body to the Site is the Ottawa River, located approximately two miles northwest of the Site. The Ottawa River flows northeast to the Maumee Bay and Lake Erie.

- **Hazardous substances in drums or other bulk storage containers that may pose a threat of release.**

As described above, there are numerous drums and small containers located throughout the warehouse facility. Laboratory analytical results identified waste material within the drums and small containers that are considered to be hazardous based on the characteristic of ignitability and contain elevated concentrations of VOCs. Although sampling results identified no materials considered to be hazardous based on the RCRA characteristic of corrosivity, START observed drums labeled "corrosive" that were inaccessible at the time of this site assessment. Several of the drums and small containers were uncovered, deteriorated, and/or leaking. Further deterioration of the drums and small containers may allow additional quantities of hazardous substances to be released and migrate into the environment. The volume and haphazard placement of debris and general refuse within the building limited access. Narrow walkways had been cleared through the assortment of debris, drums, small containers, pallets, and general refuse, but WESTON START was unable to access all areas and unable to identify all drums and small containers. It is likely that some of the inaccessible, unidentifiable drums and small containers within the warehouse facility contain hazardous substances. In addition, WESTON START identified hazardous substances at the Cretecote Site, through separate site assessment activities. Due to the fact that Mr. Oswald performs operations at both warehouse facilities, and some of the same materials were identified at both of the Sites, it is possible that hazardous substances found at the Cretecote Site could also be stored at this Site.

- **Weather conditions that may cause hazardous substances, pollutants, or contaminants to migrate or be released**

Although the roof was repaired over the portion of the building where the Paracril material has been spilled onto the floor, it is evident that this material is leaking out of the building and onto the soil.

Water entering the warehouse facility from other areas could potentially assist in the migration of this and other spilled material into the outside environment. In addition, the warehouse facility is not heated. Temperatures during winter in Ohio often drop to below freezing. This freeze and thaw can further degrade the conditions of the drums, causing liquids to be released into the environment. Rain and snow could also result in the run-off of contamination into the storm sewer or subsurface soil.

- **Threat of fire or explosion.**

Laboratory analytical results identified waste material within the drums and small containers that are considered to be hazardous based on the characteristic of ignitability. In addition, WESTON START documented several drums and small containers labeled "flammable." The quantity of flammable materials in drums and small containers within the warehouse facility greatly increases the threat of fire or explosion at the Site. The owner has indicated that trespassers have accessed the Site and have entered the warehouse and could inadvertently light a match presenting a potential ignition source. Electrical power within the warehouse facility is currently transmitted with extension cords and power strips. Extension cords are laid across the floor, hung from the ceiling, and draped over drums and debris throughout the warehouse facility. This highly dangerous method of electrical transmission throughout the warehouse facility coupled with the volume of flammable liquids and leaking drums stored within the warehouse facility poses a substantial threat of fire or explosion. The City of Toledo Fire Department has placarded the building as a "Code Red" indicating that fire fighters should not approach or enter the building if responding to a fire.

- **The availability of other appropriate federal or state response mechanisms to respond to the release.**

Ohio EPA requested U.S. EPA assistance in performing a removal action site assessment at the Site, which documents the need for federal involvement to address the threats posed by the Site.

CONCLUSIONS AND RECOMMENDATIONS

In conjunction with this site assessment, WESTON START estimated 2,047 drums and small containers were located throughout the Site. WESTON START collected five drum samples and one solid sample of the Paracril material on the floor during the site assessment. Analysis of these samples indicated the presence of wastes that were ignitable, as defined by RCRA, and which contained elevated concentrations of VOCs. Although sampling results identified no materials considered to be corrosive, as defined by RCRA, START observed drums labeled "corrosive" that were inaccessible at the time of this site assessment.

WESTON START identified the following hazards at the Site:

- uncontrolled, unlabled waste material in drums and small containers
- uncontrolled, unlabeled waste material in open and leaking containers
- uncontrolled, unlabeled waste material on the floor inside the facility
- uncontrolled, unlabeled waste material leaking out of the facility and onto the soil
- unorganized debris and general refuse throughout the building
- drums and small containers buried under debris
- drums and small containers haphazardly placed atop debris
- drums and pallets haphazardly stacked to an unsafe height
- unrestricted access to the facility as the site is not fenced
- Close proximity to residential properties located to the west and east of the site and other vulnerable areas such as a day care facilities, an elementary school, and a park
- likely presence of at-risk human populations, including children and the elderly, in close proximity to the Site

Based on the information gathered during the site assessment and the analytical results, WESTON recommends the following:

- Conduct a time-critical removal action to address identified hazards and mitigate threats posed by these hazards to human health and the environment.
- Restrict site access to limit the potential for releases and endangerment prior to completing a time-critical removal action.
- Remove all uncontrolled wastes from the Site to reduce the potential for a release of

hazardous materials that could result in, but not be limited to, any or all of the following impacts:

- potential exposure by human and animal populations and the sensitive ecosystem of the Ottawa River to site contaminants;
- potential for fire or explosion due to ignitable liquids stored in drums and hazardous electrical transmission;
- potential release of site-related hazardous materials to the storm sewer and the Ottawa River.

Restricting access to the Site and removing all uncontrolled wastes will not eliminate the potential hazards at the Site, but will greatly reduce and/or eliminate the immediate hazards identified by this assessment. The surrounding soil and building materials could still contain significant concentrations of site-related contaminants.

The preparation of this letter report serves as the final TDD deliverable. All tasks pertaining to this TDD have been completed. If there are any questions or comments regarding this report, please contact WESTON START at either of the below phone numbers.

Very truly yours,
WESTON SOLUTIONS, INC.

Lori Ambrosio
WESTON START Site Lead
(313) 739-2531

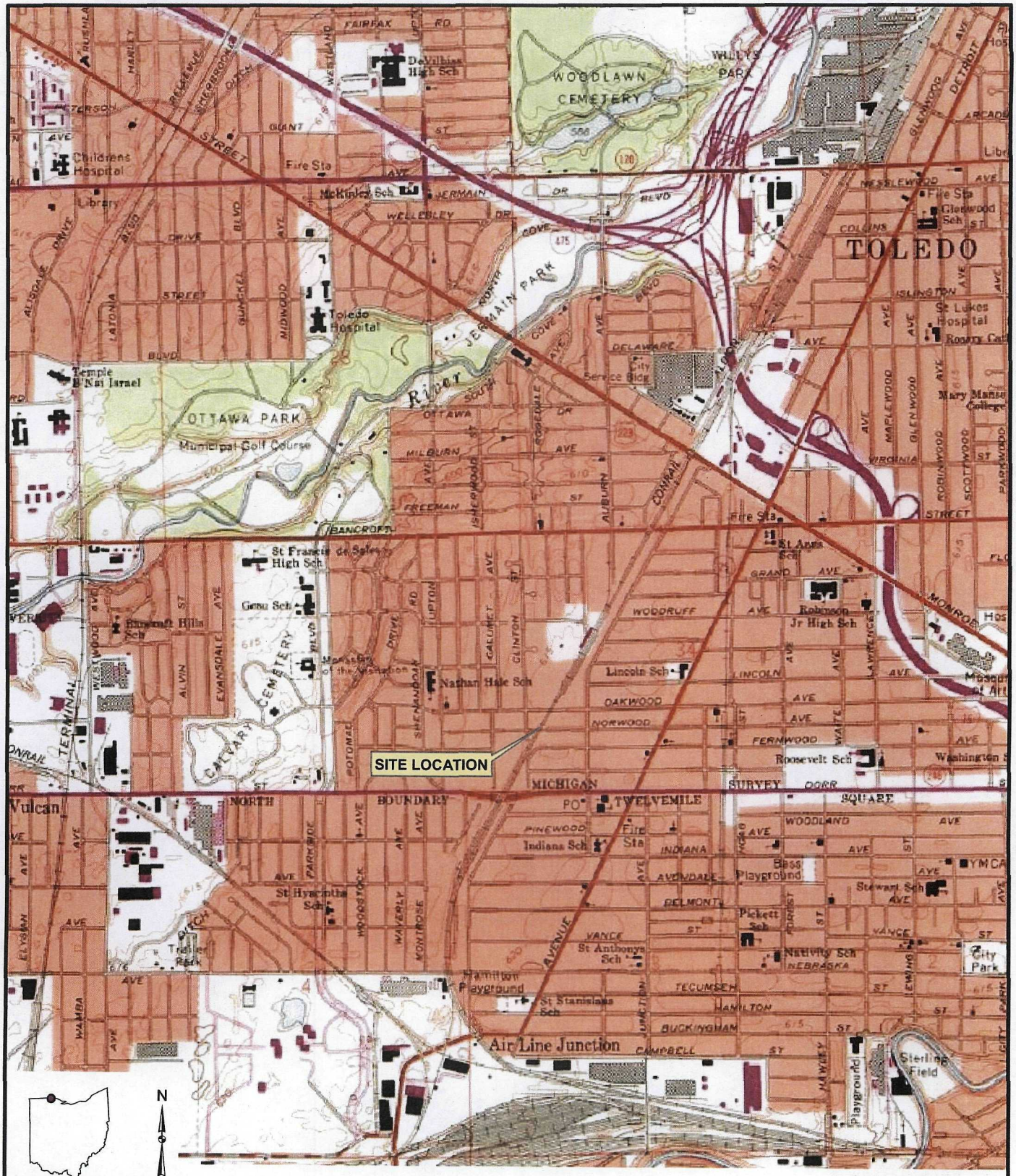
TJ McFarland
WESTON START Project Manager
(440) 202-2802

Attachment:
Attachment A – Figures
Attachment B – Data Tables
Attachment C – Photo Log
Attachment D – Laboratory Analytical Reports

cc: WESTON START DCN File
Gail Stanuch, U.S. EPA

ATTACHMENT A

Figures



SOURCE: ESRI ArcGIS Map Service
NGS_Topo_US_2D

Figure A-1

Prepared for:
U.S. EPA REGION V
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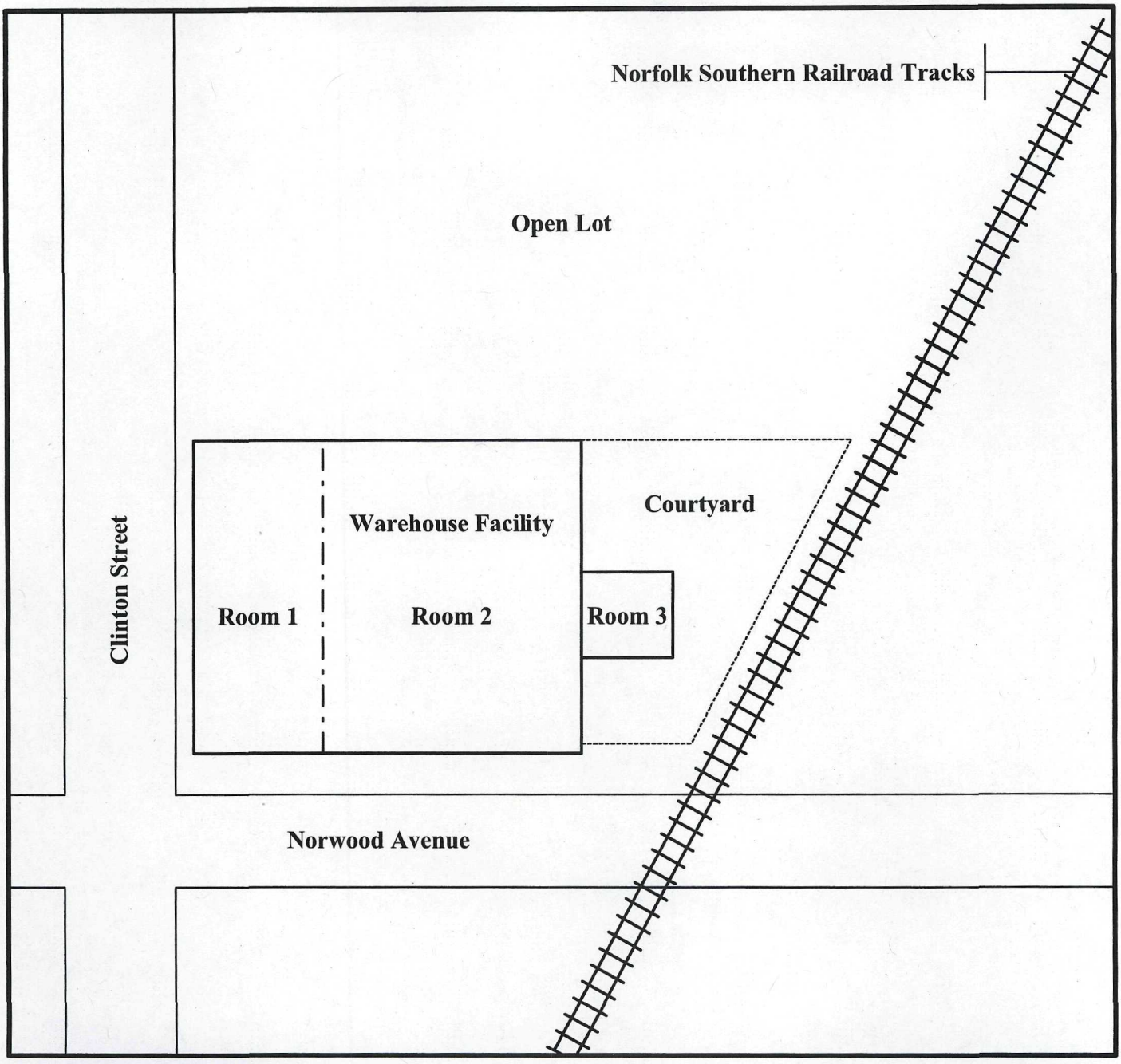
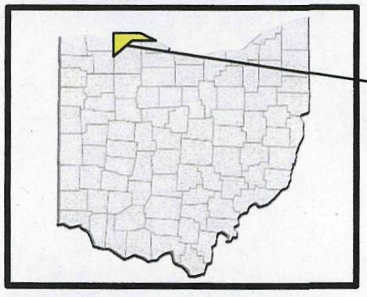
TDD No.: S05-0001-0805-015
DCN: DCN 454-2A-ACFE

Prepared by:
WESTON SOLUTIONS, INC.
7800 W. Outer Drive, Suite 200
Detroit, MI 48235

Site Location Map
Norwood Drum Site
1678 Norwood Ave
Toledo, Ohio 43607
June, 2008

File Path: I:\WO\START3\454\SARPTFigureA-1.pdf





Lucas County

Legend

- Structure
- Fence
- Interior Wall
- Railroad Tracks

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Figure A-2

Prepared for:
U.S. EPA REGION V
Contract No: EP-S5-06-04

TDD No: S05-0001-0805-015
DCN: 454-2A-ACFE

Prepared by:
WESTON SOLUTIONS, INC.
6779 Engle Road, Suite I
Middleburg Heights, OH 44130

Site Features Map
Norwood Drum Site Assessment
Toledo, Lucas County, Ohio
June, 2008
Scale: Not to Scale

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ATTACHMENT B

Data Tables

Attachment B
The Norwood Drum Site - TCLP Metals
Toledo, Lucas County, Ohio

Parameter	Units	Sample Name	ND-WL001-060408	ND-WL002-060408	ND-WL003-060408
		Sampling Date	06/04/08	06/04/08	06/04/08
		Sample Matrix	Liquid	Liquid	Liquid
Metals					
Corrosivity	su		**10.1**	**11.9**	**9.2**
TCLP Arsenic	mg/liter		<0.2	<0.2	<0.2
TLCP Barium	mg/liter		<0.2	<0.2	<0.2
TCLP Cadmium	mg/liter		<0.2	<0.2	<0.2
TCLP Chromium	mg/liter		<0.2	<0.2	<0.2
TCLP Lead	mg/liter		<0.2	<0.2	<0.2
TCLP Mercury	ug/liter		<12.4	<12.4	<12.4
TCLP Selenium	mg/liter		<0.2	<0.2	<0.2
TCLP Silver	mg/liter		<0.2	<0.2	<0.2
Total Cyanides	mg/liter		NA	NA	<0.095
% Moisture	%		NA	NA	NA
Flashpoint	Deg. F		NA	NA	**>200**

NOTES:
Results in shaded boxes exceed the laboratory reporting limit.
ND - Not detected at the method detection limit
su - Standard Units
mg/liter - Milligrams per liter
ug/liter - Micrograms per liter
% - Percent
Deg. F - Degrees Fahrenhiet
TCLP - Total Characteristic Leaching Procedure
U.S. EPA - United States Environmental Protection Agency
NA- Not analyzed

Attachment B
The Norwood Drum Site - TCLP Metals
Toledo, Lucas County, Ohio

Parameter	Units	Sample Name	ND-WL005-060408	ND-WL006-060408	ND-WS001-060408	ND-WS001-060408D
		Sampling Date	06/04/08	06/04/08	06/04/08	06/04/08
		Sample Matrix	Liquid	Liquid	Solid	Solid
Metals						
Corrosivity	su		NA	NA	**4.3**	**4.3**
TCLP Arsenic	mg/liter		NA	NA	<0.1	<0.1
TLCP Barium	mg/liter		NA	NA	<0.1	<0.1
TCLP Cadmium	mg/liter		NA	NA	<0.1	<0.1
TCLP Chromium	mg/liter		NA	NA	<0.1	<0.1
TCLP Lead	mg/liter		NA	NA	<0.1	<0.1
TCLP Mercury	ug/liter		NA	NA	<10	<10
TCLP Selenium	mg/liter		NA	NA	<0.1	<0.1
TCLP Silver	mg/liter		NA	NA	<0.1	<0.1
Total Cyanides	mg/liter		NA	NA	<0.1	<0.1
% Moisture	%		NA	NA	**4.7**	**4.7**
Flashpoint	Deg. F		**<50**	**92**	**>200**	**>200**

NOTES:
Results in shaded boxes exceed the laboratory reporting limit.
ND - Not detected at the method detection limit
su - Standard Units
mg/liter - Milligrams per liter
ug/liter - Micrograms per liter
% - Percent
Deg. F - Degrees Fahrenhiet
TCLP - Total Characteristic Leaching Procedure
U.S. EPA - United States Environmental Protection Agency
NA- Not analyzed

Attachment B
The Norwood Drum Site - VOCs
Toledo, Lucas County, Ohio

Parameter	Units	Sample Name	ND-WL001-060408	ND-WL002-060408	ND-WL003-060408
		Sampling Date	06/04/08	06/04/08	06/04/08
		Sample Matrix	Liquid	Liquid	Liquid
VOC					
Acetone	mg/kg		<18	<230	<160
Acrolein	mg/kg		<18	<230	<160
Acrylonitrile	mg/kg		<18	<230	<160
Benzene	mg/kg		<3.5	<45	<32
Bromochloromethane	mg/kg		<3.5	<45	<32
Bromodichloromethane	mg/kg		<3.5	<45	<32
Bromoform	mg/kg		<3.5	<45	<32
Boromomethane	mg/kg		<3.5	<45	<32
Carbon disulfide	mg/kg		<3.5	<45	<32
Carbon tetrachloride	mg/kg		<3.5	<45	<32
Chlorobenzene	mg/kg		<3.5	<45	<32
Chloroethane	mg/kg		<3.5	<45	<32
Chloroform	mg/kg		<3.5	<45	<32
Chloromethane	mg/kg		<3.5	<45	<32
Dibromochloromethane	mg/kg		<3.5	<45	<32
1,1 - Dichloroethane	mg/kg		<3.5	<45	<32
1,2 - Dichloroethane	mg/kg		<3.5	<45	<32
1,1 - Dichloroethene	mg/kg		<3.5	<45	<32
1,2 -Dichloropropane	mg/kg		<3.5	<45	<32
cis -1,2 - Dichloroethene	mg/kg		<3.5	<45	<32
trans-1,2- Dichloroethene	mg/kg		<3.5	<45	<32
cis-1,3- Dichloropropene	mg/kg		<3.5	<45	<32
trans-1,3- Dichloropropene	mg/kg		<3.5	<45	<32
Ethylbenzene	mg/kg		<3.5	**310**	<32
2-Hexanone	mg/kg		<18	<230	<160
n-Hexane	mg/kg		<3.5	<45	<32
Methyl chloride	mg/kg		**14**	<45	<32
Methyl ehtyl ketone 2-butanone	mg/kg		<18	<230	<160
Methyl methacrylate	mg/kg		<3.5	<45	<32
4-Methyl-2-pentanone	mg/kg		<18	<230	<160
2-Nitropropane	mg/kg		<3.5	<45	<32
Pentachloroethane	mg/kg		<3.5	<45	<32
Propionitrile	mg/kg		<3.5	<45	<32
Styrene	mg/kg		<3.5	<45	<32
1,1,1,2 - Tetrachloroethane	mg/kg		<3.5	<45	<32
1,1,2,2 - Tetrachloroethane	mg/kg		<3.5	<45	<32
Tetrachloroethene	mg/kg		<3.5	<45	<32
Toulene	mg/kg		**17**	<45	<32
1,2,4 - Trichlorobenzne	mg/kg		<3.5	<45	<32
1,1,1 - Trichloroethane	mg/kg		<3.5	<45	<32
1,1,2 - Trichloroethane	mg/kg		<3.5	<45	<32
Trichloroethene	mg/kg		<3.5	<45	<32
Trichlorofluoroethane	mg/kg		<3.5	<45	<32
1,2,3 - Trichloropropane	mg/kg		<3.5	<45	<32
1,1,2 - Trichlorotrifluoroethane	mg/kg		<3.5	<45	<32
1,2,4 - Trimethylbenzene	mg/kg		<3.5	<45	<32
Vinyl acetate	mg/kg		<3.5	<45	<32
Vinyl chloride	mg/kg		<3.5	<45	<32
Xylenes (Total)	mg/kg		<3.5	**1200**	<32

NOTES:
Results in shaded boxes indicate analytical results above the detection limit.
ND - Not detected at the method detection limit
mg/kg - Milligrams per kilogram
VOC - Volatile Organic Compounds
U.S. EPA - United States Environmental Protection Agency
NA - Not analyzed

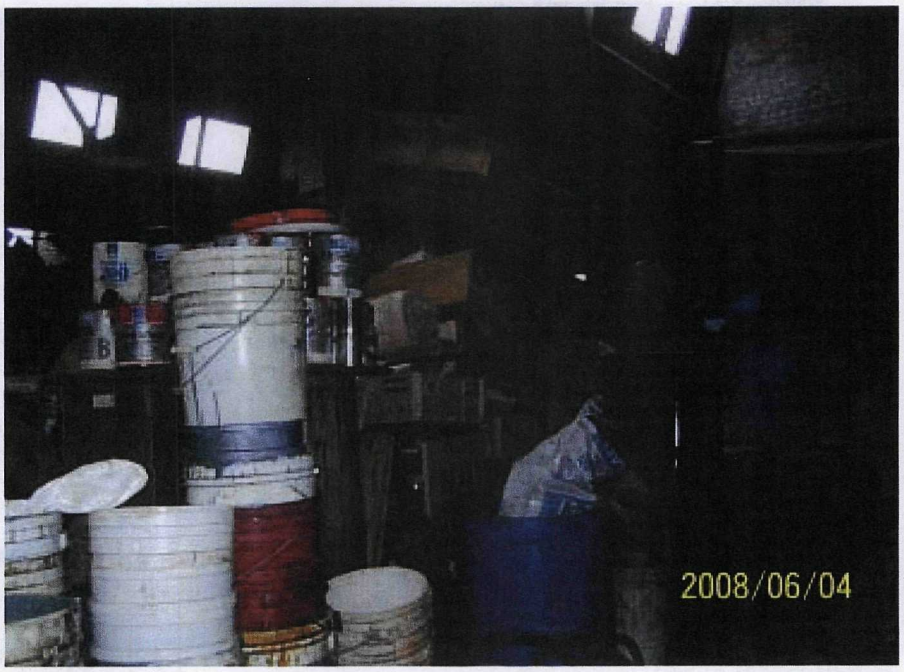
Attachment B
The Norwood Drum Site - VOCs
Toledo, Lucas County, Ohio

Parameter	Units	Sample Name	ND-WL005-060408	ND-WL006-060408	ND-WS001-060408	ND-WS001-060408D
		Sampling Date	06/04/08	06/04/08	06/04/08	06/04/08
		Sample Matrix	Liquid	Liquid	Solid	Solid
VOC						
Acetone	mg/kg		na	na	<120	<120
Acrolein	mg/kg		na	na	<120	<120
Acrylonitrile	mg/kg		na	na	<120	<120
Benzene	mg/kg		na	na	<24	<24
Bromochloromethane	mg/kg		na	na	<24	<24
Bromodichloromethane	mg/kg		na	na	<24	<24
Bromoform	mg/kg		na	na	<24	<24
Boromomethane	mg/kg		na	na	<24	<24
Carbon disulfide	mg/kg		na	na	<24	<24
Carbon tetrachloride	mg/kg		na	na	<24	<24
Chlorobenzene	mg/kg		na	na	<24	<24
Chloroethane	mg/kg		na	na	<24	<24
Chloroform	mg/kg		na	na	<24	<24
Chloromethane	mg/kg		na	na	<24	<24
Dibromochloromethane	mg/kg		na	na	<24	<24
1,1 - Dichloroethane	mg/kg		na	na	<24	<24
1,2 - Dichloroethane	mg/kg		na	na	<24	<24
1,1 - Dichloroethene	mg/kg		na	na	<24	<24
1,2 -Dichloropropane	mg/kg		na	na	<24	<24
cis -1,2 - Dichloroethene	mg/kg		na	na	<24	<24
trans-1,2- Dichloroethene	mg/kg		na	na	<24	<24
cis-1,3- Dichloropropene	mg/kg		na	na	<24	<24
trans-1,3- Dichloropropene	mg/kg		na	na	<24	<24
Ethylbenzene	mg/kg		na	na	<24	<24
2-Hexanone	mg/kg		na	na	<120	<120
n-Hexane	mg/kg		na	na	<24	<24
Methyl chloride	mg/kg		na	na	<24	<24
Methyl ehtyl ketone 2-butanone	mg/kg		na	na	<120	<120
Methyl methacrylate	mg/kg		na	na	<24	<24
4-Methyl-2-pentanone	mg/kg		na	na	<120	<120
2-Nitropropane	mg/kg		na	na	<24	<24
Pentachloroethane	mg/kg		na	na	<24	<24
Propionitrile	mg/kg		na	na	<24	<24
Styrene	mg/kg		na	na	<24	<24
1,1,1,2 - Tetrachloroethane	mg/kg		na	na	<24	<24
1,1,2,2 - Tetrachloroethane	mg/kg		na	na	<24	<24
Tetrachloroethene	mg/kg		na	na	<24	<24
Toulene	mg/kg		na	na	**190**	**190**
1,2,4 - Trichlorobenzne	mg/kg		na	na	<24	<24
1,1,1 - Trichloroethane	mg/kg		na	na	<24	<24
1,1,2 - Trichloroethane	mg/kg		na	na	<24	<24
Trichloroethene	mg/kg		na	na	<24	<24
Trichlorofluoroethane	mg/kg		na	na	**320**	**320**
1,2,3 - Trichloropropane	mg/kg		na	na	<24	<24
1,1,2 - Trichlorotrifluoroethane	mg/kg		na	na	<24	<24
1,2,4 - Trimethylbenzene	mg/kg		na	na	<24	<24
Vinyl acetate	mg/kg		na	na	<24	<24
Vinyl chloride	mg/kg		na	na	<24	<24
Xylenes (Total)	mg/kg		na	na	<24	<24

NOTES:
Results in shaded boxes indicate analytical results above the detection limit.
ND - Not detected at the method detection limit
mg/kg - milligrams per kilogram
VOC - Volatile Organic Compounds
U.S. EPA - United States Environmental Protection Agency
NA - Not analyzed

ATTACHMENT C

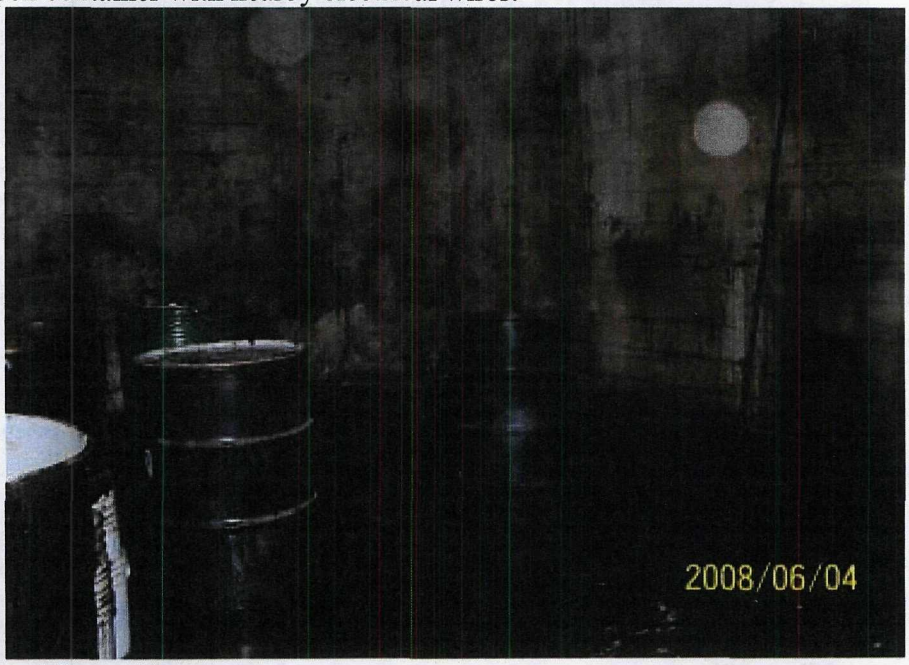
Photo Log



Site: Norwood Drum Site
Photo Number: 100_2124 **Date:** 06/04/08
Direction: Northeast **Photographer:** Lorie Ambrosio
Subject: Debris pile containing boxes, drums, and containers.

Site: Norwood Drum Site
Photo Number: 100_2126 **Date:** 06/04/08
Direction: South **Photographer:** Lorie Ambrosio
Subject: Debris pile containing numerous photovoltaic glass tubes containing Barium gas.

Site: Norwood Drum Site
Photo Number: 100_2127 **Date:** 06/04/08
Direction: Down **Photographer:** Lorie Ambrosio
Subject: Open container with nearby electrical wires.

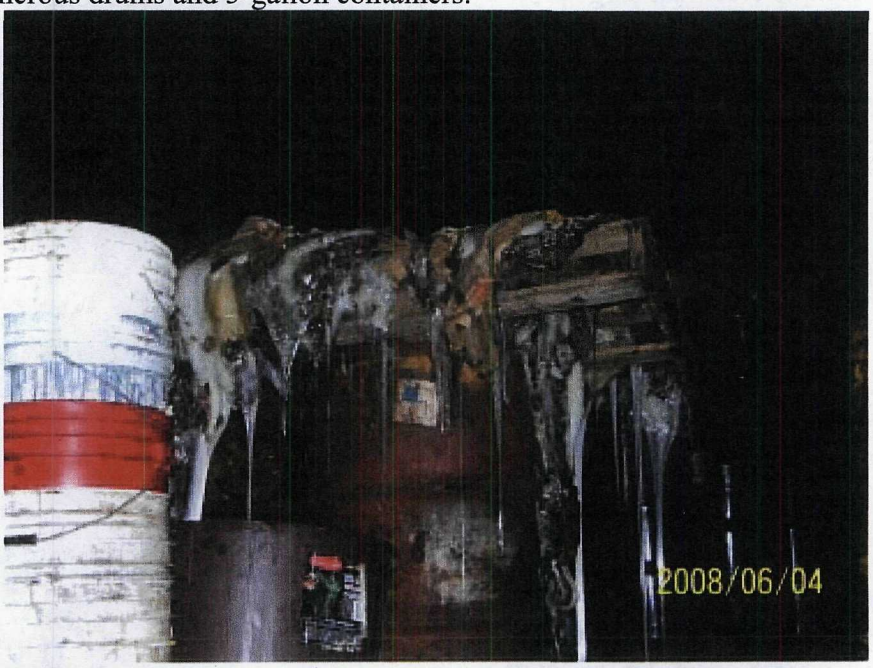


Site: Norwood Drum Site
Photo Number: 100_2132 **Date:** 06/04/08
Direction: Southwest **Photographer:** Lorie Ambrosio
Subject: Mixing and repackaging area with spilled solid material (Paracril) on the floor and seeping through the walls.

Site: Norwood Drum Site
Photo Number: 100_2135 **Date:** 06/04/08
Direction: Southeast **Photographer:** Lorie Ambrosio
Subject: Multiple electrical surge protectors and extension cords linked together for overhead lighting.

Site: Norwood Drum Site
Photo Number: 100_2138 **Date:** 06/04/08
Direction: West **Photographer:** Lorie Ambrosio
Subject: Drums stacked up to three high.

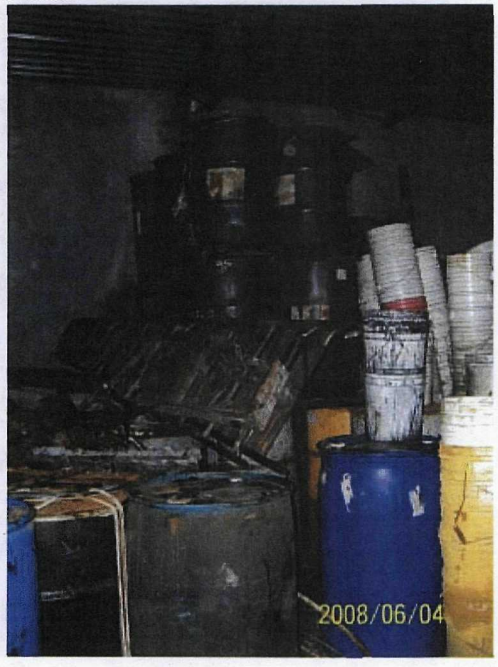
Site: Norwood Drum Site
Photo Number: 100_2139
Direction: Northwest
Subject: Numerous drums and 5-gallon containers.
Date: 06/04/08
Photographer: Lorie Ambrosio



Site: Norwood Drum Site
Photo Number: 100_2140
Direction: Northwest
Subject: Pallet of dripping butyl rubber material.
Date: 06/04/08
Photographer: Lorie Ambrosio

Site: Norwood Drum Site
Photo Number: 100_2141
Direction: Down
Subject: Leaking drum on its side.

Date: 06/04/08
Photographer: Lorie Ambrosio



Site: Norwood Drum Site
Photo Number: 100_2146
Direction: Northwest
Subject: Stacked drums up to three high.

Date: 06/04/08
Photographer: Lorie Ambrosio

Site: Norwood Drum Site
Photo Number: 100_2153 **Date:** 06/04/08
Direction: East **Photographer:** Lorie Ambrosio
Subject: Debris pile containing boxes, drums, and containers.

Site: Norwood Drum Site
Photo Number: 100_2174 **Date:** 06/04/08
Direction: Down **Photographer:** Lorie Ambrosio
Subject: Steel container with crystallization.

Site: Norwood Drum Site
Photo Number: 100_2178
Direction: Down
Date: 06/04/08
Photographer: Lorie Ambrosio
Subject: Stacked 5-gallon containers possibly leaking.

Site: Norwood Drum Site
Photo Number: 100_2181
Direction: Down
Date: 06/04/08
Photographer: Lorie Ambrosio
Subject: Crystallization formed around a steel drum surrounded by 5-gallon containers.

Site: Norwood Drum Site
Photo Number: 100_2186
Direction: Down
Subject: Leaked material on floor.
Date: 06/04/08
Photographer: Lorie Ambrosio

Site: Norwood Drum Site
Photo Number: 100_2081
Direction: South
Subject: City of Toledo Fire Department Code Red placard on the north wall of the building.
*Note – The date stamp on this digital photograph is incorrect. Refer to the text description for the correct date.
Date: 06/04/08
Photographer: Lorie Ambrosio

ATTACHMENT D

Laboratory Analytical Results

NORWOOD DRUMS
TOLEDO, OHIO
DATA VALIDATION REPORT

Date: July 2, 2008
Laboratory: EA Group, Mentor, Ohio
Laboratory Project #: 080600115
Data Validation Performed By: Lisa Graczyk, Dynamac Corporation (Dynamac), subcontractor to Weston Solutions, Inc. (Weston)
Weston Analytical Work Order #/TDD #: 20405.016.001.0455.00/S05-0001-0805-016

This data validation report has been prepared by Dynamac, a Weston subcontractor, under the START III Region V contract. This report documents the data validation for liquid and solid samples collected for the Norwood Drums Site that were analyzed for the following United States Environmental Protection Agency (U.S. EPA) parameters and methods:

- Volatile Organic Compounds (VOC) by SW-846 Method 8260A
- TCLP Metals by SW-846 Methods 1311, 6010A, and 7470A
- Total Cyanide by SW-846 Method 9010A
- Corrosivity by SW-846 Method 9045C
- Flashpoint by SW-846 Method 1010M

A level II data package was requested from EA Group. The data validation was conducted in general accordance with the U.S. EPA "Contract Laboratory Program National Functional Guidance for Superfund Organic Methods Data Review" dated July 2007 and "Contract Laboratory Program National Functional Guidelines for Inorganic Data Review" dated October 2004. The Attachment contains the results summary sheets with the hand-written qualifiers applied during data validation.

VOCs BY SW-846 METHOD 8260A

1. Samples

The following table summarizes the samples for which this data validation is being conducted.

Samples	Lab ID	Matrix	Date Collected	Date Analyzed
ND-WL001-060408	0806-00115-001	Liquid	6/4/2008	6/10/2008
ND-WL002-060408	0806-00115-002	Liquid	6/4/2008	6/9/2008
ND-WL003-060408	0806-00115-003	Liquid	6/4/2008	6/10/2008
ND-WS001-060408	0806-00115-006	Solid	6/4/2008	6/9/2008
ND-WS001-060408D	0806-00115-007	Solid	6/4/2008	6/9/2008

2. **Holding Times**

The samples were analyzed within the required holding time limit of 14 days from sample collection.

3. **Blanks**

Method blanks were analyzed with the samples and were free of target compound contamination above the reporting.

4. **Surrogate Results**

The surrogate recovery results were within the quality control (QC) limits established by the laboratory except for a couple that were slightly outside the QC limit. No qualifications were applied for these minor discrepancies.

5. **Laboratory Control Sample (LCS) Results**

The LCS and LCS duplicate recoveries were within the laboratory-established QC limits.

6. **Overall Assessment**

The VOC data are acceptable for use based on the information received.

TCLP METALS BY SW-846 METHODS 1311, 6010A, AND 7470A

1. **Samples**

The following table summarizes the samples for which this data validation is being conducted.

Samples	Lab ID	Matrix	Date Collected	Date Analyzed
ND-WL001-060408	0806-00115-001	Liquid	6/4/2008	6/13/2008
ND-WL002-060408	0806-00115-002	Liquid	6/4/2008	6/13/2008
ND-WL003-060408	0806-00115-003	Liquid	6/4/2008	6/13/2008
ND-WS001-060408	0806-00115-006	Solid	6/4/2008	6/13/2008
ND-WS001-060408D	0806-00115-007	Solid	6/4/2008	6/13/2008

2. **Holding Times**

The samples were analyzed within the required holding time limit of 28 days from sample collection for mercury and 180 days from sample collection for all other metals.

3. Blank Results

Method blanks were analyzed with the samples and were free of target analytes above the reporting limit.

4. LCS Results

The LCS recoveries were within the laboratory-established QC limits for target analytes.

5. Overall Assessment

The metals data are acceptable for use based on the information received.

GENERAL CHEMISTRY PARAMETER (Total Cyanide by SW-846 Method 9010A, Corrosivity by SW-846 Method 9045C, and Flashpoint by SW-846 Method 1010M)

1. Samples

The following table summarizes the samples for which this data validation is being conducted.

Samples	Lab ID	Matrix	Date Collected	Date Analyzed
ND-WL001-060408	0806-00115-001	Liquid	6/4/2008	6/11/2008
ND-WL002-060408	0806-00115-002	Liquid	6/4/2008	6/11/2008
ND-WL003-060408	0806-00115-003	Liquid	6/4/2008	6/11/2008 – 6/17/2008
ND-WL005-060408	0806-00115-004	Liquid	6/4/2008	6/11/2008
ND-WL006-060408	0806-00115-005	Liquid	6/4/2008	6/11/2008
ND-WS001-060408	0806-00115-006	Solid	6/4/2008	6/11/2008 – 6/17/2008
ND-WS001-060408D	0806-00115-007	Solid	6/4/2008	6/11/2008 – 6/17/2008

2. Holding Times

For the cyanide analysis, the samples were analyzed with the 14 day holding time limit. There are no holding time limits established for the corrosivity and flashpoint analyses. The corrosivity and flashpoint analyses was performed within 7 days of sample collection.

3. Duplicate Results

The laboratory analyzed a duplicate sample with the corrosivity and flashpoint analyses. The agreement between the duplicate and parent result was acceptable.

4. Overall Assessment

No other QC checks were provided with this analysis. The cyanide, corrosivity, and flashpoint results are acceptable for use based on the information received.

Data Validation Report
Ohio Cast Products
EA Group
Laboratory Work Order #: 080600115

ATTACHMENT

EA GROUP
RESULTS SUMMARY

EAG Workorder: 0806-00115

EA GROUP

Client Project: Norwood Drums

EAG ID: 0806-00115-1 Client ID: ND-WL001-060408 Sampled: 6/04/2008 Received: 6/06/2008

Parameter	Result	Sample Reporting Limit	Units	Prep Date	Analysis Date	Analyst
Arsenic, TCLP: SW846-6010A	<0.20	0.20	mg/liter	6/12/2008	6/13/2008	CMB
Barium, TCLP: SW846-6010A	<0.20	0.20	mg/liter	6/12/2008	6/13/2008	CMB
Cadmium, TCLP: SW846-6010A	<0.20	0.20	mg/liter	6/12/2008	6/13/2008	CMB
Chromium, TCLP: SW846-6010A	<0.20	0.20	mg/liter	6/12/2008	6/13/2008	CMB
Lead, TCLP: SW846-6010A	<0.20	0.20	mg/liter	6/12/2008	6/13/2008	CMB
Mercury, TCLP: SW846-7470A	<12.4	12.4	ug/liter	6/13/2008	6/13/2008	CP
Selenium, TCLP: SW846-6010A	<0.20	0.20	mg/liter	6/12/2008	6/13/2008	CMB
Silver, TCLP: SW846-6010A	<0.20	0.20	mg/liter	6/12/2008	6/13/2008	CMB
SW846 1311: TCLP Extraction	Complete				6/11/2008	CP
Corrosivity: SW846-9045C	10.1		pH units	6/11/2008	6/11/2008	SLD

EAG ID: 0806-00115-2 Client ID: ND-WL002-060408 Sampled: 6/04/2008 Received: 6/06/2008

Parameter	Result	Sample Reporting Limit	Units	Prep Date	Analysis Date	Analyst
Arsenic, TCLP: SW846-6010A	<0.20	0.20	mg/liter	6/12/2008	6/13/2008	CMB
Barium, TCLP: SW846-6010A	<0.20	0.20	mg/liter	6/12/2008	6/13/2008	CMB
Cadmium, TCLP: SW846-6010A	<0.20	0.20	mg/liter	6/12/2008	6/13/2008	CMB
Chromium, TCLP: SW846-6010A	<0.20	0.20	mg/liter	6/12/2008	6/13/2008	CMB
Lead, TCLP: SW846-6010A	<0.20	0.20	mg/liter	6/12/2008	6/13/2008	CMB
Mercury, TCLP: SW846-7470A	<12.4	12.4	ug/liter	6/13/2008	6/13/2008	CP
Selenium, TCLP: SW846-6010A	<0.20	0.20	mg/liter	6/12/2008	6/13/2008	CMB
Silver, TCLP: SW846-6010A	<0.20	0.20	mg/liter	6/12/2008	6/13/2008	CMB
SW846 1311: TCLP Extraction	Complete				6/11/2008	CP
Corrosivity: SW846-9045C	11.9		pH units	6/11/2008	6/11/2008	SLD

EAG Workorder: 0806-00115

EA GROUP

Client Project: Norwood Drums

EAG ID: 0806-00115-3 Client ID: ND-WL003-060408 Sampled: 6/04/2008 Received: 6/06/2008

Parameter	Result	Sample Reporting Limit	Units	Prep Date	Analysis Date	Analyst
Arsenic, TCLP: SW846-6010A	<0.20	0.20	mg/liter	6/12/2008	6/13/2008	CMB
Barium, TCLP: SW846-6010A	<0.20	0.20	mg/liter	6/12/2008	6/13/2008	CMB
Cadmium, TCLP: SW846-6010A	<0.20	0.20	mg/liter	6/12/2008	6/13/2008	CMB
Chromium, TCLP: SW846-6010A	<0.20	0.20	mg/liter	6/12/2008	6/13/2008	CMB
Lead, TCLP: SW846-6010A	<0.20	0.20	mg/liter	6/12/2008	6/13/2008	CMB
Mercury, TCLP: SW846-7470A	<12.4	12.4	ug/liter	6/13/2008	6/13/2008	C
Selenium, TCLP: SW846-6010A	<0.20	0.20	mg/liter	6/12/2008	6/13/2008	CMB
Silver, TCLP: SW846-6010A	<0.20	0.20	mg/liter	6/12/2008	6/13/2008	CMB
SW846 1311: TCLP Extraction	Complete				6/11/2008	CP
Corrosivity: SW846-9045C	9.2		pH units	6/11/2008	6/11/2008	SLD
Flashpoint: SW846-1010M/ASTM D93	>200		degrees F		6/11/2008	LJM
Cyanide, Total: SW846-9010A	<0.095	0.095	mg/kg	6/17/2008	6/17/2008	CMW

EAG ID: 0806-00115-4 Client ID: ND-WL005-060408 Sampled: 6/04/2008 Received: 6/06/2008

Parameter	Result	Sample Reporting Limit	Units	Prep Date	Analysis Date	Analyst
Flashpoint: SW846-1010M/ASTM D93	<50		degrees F		6/11/2008	LJM

EAG ID: 0806-00115-5 Client ID: ND-WL006-060408 Sampled: 6/04/2008 Received: 6/06/2008

Parameter	Result	Sample Reporting Limit	Units	Prep Date	Analysis Date	Analyst
Flashpoint: SW846-1010M/ASTM D93	92		degrees F		6/11/2008	LJM

EAG Workorder: 0806-00115

EA GROUP

Client Project: Norwood Drums

EAG ID: 0806-00115-6 Client ID: ND-WS001-060408 Sampled: 6/04/2008 Received: 6/06/2008

Parameter	Result	Sample Reporting Limit	Units	Prep Date	Analysis Date	Analyst
Arsenic, TCLP: SW846-6010A	<0.10	0.10	mg/liter	6/12/2008	6/13/2008	CMB
Barium, TCLP: SW846-6010A	<0.10	0.10	mg/liter	6/12/2008	6/13/2008	CMB
Cadmium, TCLP: SW846-6010A	<0.10	0.10	mg/liter	6/12/2008	6/13/2008	CMB
Chromium, TCLP: SW846-6010A	<0.10	0.10	mg/liter	6/12/2008	6/13/2008	CMB
Lead, TCLP: SW846-6010A	<0.10	0.10	mg/liter	6/12/2008	6/13/2008	CMB
Mercury, TCLP: SW846-7470A	<10.0	10.0	ug/liter	6/13/2008	6/13/2008	CP
Selenium, TCLP: SW846-6010A	<0.10	0.10	mg/liter	6/12/2008	6/13/2008	CMB
Silver, TCLP: SW846-6010A	<0.10	0.10	mg/liter	6/12/2008	6/13/2008	CMB
SW846 1311: TCLP Extraction	Complete				6/11/2008	CP
Corrosivity: SW846-9045C	4.3		pH units	6/11/2008	6/11/2008	SLD
Flashpoint: SW846-1010M/ASTM D93	>200		degrees F		6/17/2008	LJM
Cyanide, Total: SW846-9010A	<0.10	0.10	mg/liter	6/17/2008	6/17/2008	CMW
Percent Moisture: ASTM C311	8.0	0.10	%	6/11/2008	6/11/2008	CMB

EAG ID: 0806-00115-7 Client ID: ND-WS001-060408D Sampled: 6/04/2008 Received: 6/06/2008

Parameter	Result	Sample Reporting Limit	Units	Prep Date	Analysis Date	Analyst
Arsenic, TCLP: SW846-6010A	<0.10	0.10	mg/liter	6/12/2008	6/13/2008	CMB
Barium, TCLP: SW846-6010A	<0.10	0.10	mg/liter	6/12/2008	6/13/2008	CMB
Cadmium, TCLP: SW846-6010A	<0.10	0.10	mg/liter	6/12/2008	6/13/2008	CMB
Chromium, TCLP: SW846-6010A	<0.10	0.10	mg/liter	6/12/2008	6/13/2008	CMB
Lead, TCLP: SW846-6010A	<0.10	0.10	mg/liter	6/12/2008	6/13/2008	CMB
Mercury, TCLP: SW846-7470A	<10.0	10.0	ug/liter	6/13/2008	6/13/2008	CP
Selenium, TCLP: SW846-6010A	<0.10	0.10	mg/liter	6/12/2008	6/13/2008	CMB
Silver, TCLP: SW846-6010A	<0.10	0.10	mg/liter	6/12/2008	6/13/2008	CMB
SW846 1311: TCLP Extraction	Complete				6/11/2008	CP
Corrosivity: SW846-9045C	4.3		pH units	6/11/2008	6/11/2008	SLD
Flashpoint: SW846-1010M/ASTM D93	>200		degrees F		6/17/2008	LJM
Cyanide, Total: SW846-9010A	<0.10	0.10	mg/liter	6/17/2008	6/17/2008	CMW
Percent Moisture: ASTM C311	4.7	0.10	%	6/11/2008	6/11/2008	CMB

EA GROUP

EAG Workorder: 0806-00115
EAG ID: 0806-00115-001
Client ID: ND-WL001-060408
Client Project: Norwood Drums

Matrix: Liquid
Analyst: REC

Date Sampled: * 06/04/2008
Date Received: 06/06/2008

Parameter	Result	Reporting Limit	Units	Date Analyzed
Volatile Organic Compounds: SW846-8260A				
Acetone	<18	18	mg/kg	6/10/2008
Acrolein	<18	18	mg/kg	6/10/2008
Acrylonitrile	<18	18	mg/kg	6/10/2008
Benzene	<3.5	3.5	mg/kg	6/10/2008
Bromochloromethane	<3.5	3.5	mg/kg	6/10/2008
Bromodichloromethane	<3.5	3.5	mg/kg	6/10/2008
Bromoform	<3.5	3.5	mg/kg	6/10/2008
Bromomethane	<3.5	3.5	mg/kg	6/10/2008
Carbon disulfide	<3.5	3.5	mg/kg	6/10/2008
Carbon tetrachloride	<3.5	3.5	mg/kg	6/10/2008
Chlorobenzene	<3.5	3.5	mg/kg	6/10/2008
Chloroethane	<3.5	3.5	mg/kg	6/10/2008
Chloroform	<3.5	3.5	mg/kg	6/10/2008
Chloromethane	<3.5	3.5	mg/kg	6/10/2008
Dibromochloromethane	<3.5	3.5	mg/kg	6/10/2008
1,1-Dichloroethane	<3.5	3.5	mg/kg	6/10/2008
1,2-Dichloroethane	<3.5	3.5	mg/kg	6/10/2008
1,1-Dichloroethene	<3.5	3.5	mg/kg	6/10/2008
1,2-Dichloropropane	<3.5	3.5	mg/kg	6/10/2008
cis-1,2-Dichloroethene	<3.5	3.5	mg/kg	6/10/2008
trans-1,2-Dichloroethene	<3.5	3.5	mg/kg	6/10/2008
cis-1,3-Dichloropropene	<3.5	3.5	mg/kg	6/10/2008
trans-1,3-Dichloropropene	<3.5	3.5	mg/kg	6/10/2008
Ethylbenzene	<3.5	3.5	mg/kg	6/10/2008
2-Hexanone	<18	18	mg/kg	6/10/2008
n-Hexane	<3.5	3.5	mg/kg	6/10/2008
Methylene chloride	14	3.5	mg/kg	6/10/2008
Methyl ethyl ketone(2-butanone)	<18	18	mg/kg	6/10/2008
Methyl methacrylate	<3.5	3.5	mg/kg	6/10/2008
4-Methyl-2-pentanone	<18	18	mg/kg	6/10/2008
2-Nitropropane	<3.5	3.5	mg/kg	6/10/2008
Pentachloroethane	<3.5	3.5	mg/kg	6/10/2008
Propionitrile	<3.5	3.5	mg/kg	6/10/2008
Styrene	<3.5	3.5	mg/kg	6/10/2008
1,1,1,2-Tetrachloroethane	<3.5	3.5	mg/kg	6/10/2008
1,1,2,2-Tetrachloroethane	<3.5	3.5	mg/kg	6/10/2008
Tetrachloroethene	<3.5	3.5	mg/kg	6/10/2008
Toluene	17	3.5	mg/kg	6/10/2008
1,2,4-Trichlorobenzene	<3.5	3.5	mg/kg	6/10/2008
1,1,1-Trichloroethane	<3.5	3.5	mg/kg	6/10/2008
1,1,2-Trichloroethane	<3.5	3.5	mg/kg	6/10/2008

EA GROUP

EAG Workorder: 0806-00115
EAG ID: 0806-00115-001
Client ID: ND-WL001-060408
Client Project: Norwood Drums

Matrix: Liquid
Analyst: REC

Date Sampled: 06/04/2008
Date Received: 06/06/2008

Parameter	Result	Reporting Limit	Units	Date Analyzed
Trichloroethene	<3.5	3.5	mg/kg	6/10/2008
Trichlorofluoromethane	<3.5	3.5	mg/kg	6/10/2008
1,2,3-Trichloropropane	<3.5	3.5	mg/kg	6/10/2008
1,1,2 Trichlorotrifluoroethane	<3.5	3.5	mg/kg	6/10/2008
1,2,4-Trimethylbenzene	<3.5	3.5	mg/kg	6/10/2008
Vinyl acetate	<3.5	3.5	mg/kg	6/10/2008
Vinyl chloride	<3.5	3.5	mg/kg	6/10/2008
Xylenes (total)	<3.5	3.5	mg/kg	6/10/2008

Surrogate	Percent Recovery	Recovery Limits
4-Bromofluorobenzene	113	(86 - 123)
1,2-Dichloroethane-d4	121	(77 - 121)
Toluene-d8	107	(82 - 128)

EA GROUP

EAG Workorder: 0806-00115
EAG ID: 0806-00115-002
Client ID: ND-WL002-060408
Client Project: Norwood Drums

Matrix: Liquid
Analyst: REC

Date Sampled: 06/04/2008
Date Received: 06/06/2008

Parameter	Result	Reporting Limit	Units	Date Analyzed
Volatile Organic Compounds: SW846-8260A				
Acetone	<230	230	mg/kg	6/09/2008
Acrolein	<230	230	mg/kg	6/09/2008
Acrylonitrile	<230	230	mg/kg	6/09/2008
Benzene	<45	45	mg/kg	6/09/2008
Bromochloromethane	<45	45	mg/kg	6/09/2008
Bromodichloromethane	<45	45	mg/kg	6/09/2008
Bromoform	<45	45	mg/kg	6/09/2008
Bromomethane	<45	45	mg/kg	6/09/2008
Carbon disulfide	<45	45	mg/kg	6/09/2008
Carbon tetrachloride	<45	45	mg/kg	6/09/2008
Chlorobenzene	<45	45	mg/kg	6/09/2008
Chloroethane	<45	45	mg/kg	6/09/2008
Chloroform	<45	45	mg/kg	6/09/2008
Chloromethane	<45	45	mg/kg	6/09/2008
Dibromochloromethane	<45	45	mg/kg	6/09/2008
1,1-Dichloroethane	<45	45	mg/kg	6/09/2008
1,2-Dichloroethane	<45	45	mg/kg	6/09/2008
1,1-Dichloroethene	<45	45	mg/kg	6/09/2008
1,2-Dichloropropane	<45	45	mg/kg	6/09/2008
cis-1,2-Dichloroethene	<45	45	mg/kg	6/09/2008
trans-1,2-Dichloroethene	<45	45	mg/kg	6/09/2008
cis-1,3-Dichloropropene	<45	45	mg/kg	6/09/2008
trans-1,3-Dichloropropene	<45	45	mg/kg	6/09/2008
Ethylbenzene	310	45	mg/kg	6/09/2008
2-Hexanone	<230	230	mg/kg	6/09/2008
n-Hexane	<45	45	mg/kg	6/09/2008
Methylene chloride	<45	45	mg/kg	6/09/2008
Methyl ethyl ketone(2-butanone)	<230	230	mg/kg	6/09/2008
Methyl methacrylate	<45	45	mg/kg	6/09/2008
4-Methyl-2-pentanone	<230	230	mg/kg	6/09/2008
2-Nitropropane	<45	45	mg/kg	6/09/2008
Pentachloroethane	<45	45	mg/kg	6/09/2008
Propionitrile	<45	45	mg/kg	6/09/2008
Styrene	<45	45	mg/kg	6/09/2008
1,1,1,2-Tetrachloroethane	<45	45	mg/kg	6/09/2008
1,1,2,2-Tetrachloroethane	<45	45	mg/kg	6/09/2008
Tetrachloroethene	<45	45	mg/kg	6/09/2008
Toluene	<45	45	mg/kg	6/09/2008
1,2,4-Trichlorobenzene	<45	45	mg/kg	6/09/2008
1,1,1-Trichloroethane	<45	45	mg/kg	6/09/2008
1,1,2-Trichloroethane	<45	45	mg/kg	6/09/2008

EA GROUP

EAG Workorder: 0806-00115
EAG ID: 0806-00115-002
Client ID: ND-WL002-060408
Client Project: Norwood Drums

Matrix: Liquid
Analyst: REC

Date Sampled: 06/04/2008
Date Received: 06/06/2008

Parameter	Result	Reporting Limit	Units	Date Analyzed
Trichloroethene	<45	45	mg/kg	6/09/2008
Trichlorofluoromethane	<45	45	mg/kg	6/09/2008
1,2,3-Trichloropropane	<45	45	mg/kg	6/09/2008
1,1,2 Trichlorotrifluoroethane	<45	45	mg/kg	6/09/2008
1,2,4-Trimethylbenzene	<45	45	mg/kg	6/09/2008
inyl acetate	<45	45	mg/kg	6/09/2008
Vinyl chloride	<45	45	mg/kg	6/09/2008
Xylenes (total)	1200	45	mg/kg	6/09/2008

Surrogate	Percent Recovery	Recovery Limits
4-Bromofluorobenzene	96.9	(86 - 123)
1,2-Dichloroethane-d4	111	(77 - 121)
Toluene-d8	107	(82 - 128)

EA GROUP

EAG Workorder: 0806-00115 **Matrix:** Liquid **Date Sampled:** 06/04/2008
EAG ID: 0806-00115-003 **Analyst:** REC **Date Received:** 06/06/2008
Client ID: ND-WL003-060408
Client Project: Norwood Drums

Parameter	Result	Reporting Limit	Units	Date Analyzed
Volatile Organic Compounds: SW846-8260A				
Acetone	<160	160	mg/kg	6/10/2008
Acrolein	<160	160	mg/kg	6/10/2008
Acrylonitrile	<160	160	mg/kg	6/10/2008
Benzene	<32	32	mg/kg	6/10/2008
Bromochloromethane	<32	32	mg/kg	6/10/2008
Bromodichloromethane	<32	32	mg/kg	6/10/2008
Bromoform	<32	32	mg/kg	6/10/2008
Bromomethane	<32	32	mg/kg	6/10/2008
Carbon disulfide	<32	32	mg/kg	6/10/2008
Carbon tetrachloride	<32	32	mg/kg	6/10/2008
Chlorobenzene	<32	32	mg/kg	6/10/2008
Chloroethane	<32	32	mg/kg	6/10/2008
Chloroform	<32	32	mg/kg	6/10/2008
Chloromethane	<32	32	mg/kg	6/10/2008
Dibromochloromethane	<32	32	mg/kg	6/10/2008
1,1-Dichloroethane	<32	32	mg/kg	6/10/2008
1,2-Dichloroethane	<32	32	mg/kg	6/10/2008
1,1-Dichloroethene	<32	32	mg/kg	6/10/2008
1,2-Dichloropropane	<32	32	mg/kg	6/10/2008
cis-1,2-Dichloroethene	<32	32	mg/kg	6/10/2008
trans-1,2-Dichloroethene	<32	32	mg/kg	6/10/2008
cis-1,3-Dichloropropene	<32	32	mg/kg	6/10/2008
trans-1,3-Dichloropropene	<32	32	mg/kg	6/10/2008
Ethylbenzene	<32	32	mg/kg	6/10/2008
2-Hexanone	<160	160	mg/kg	6/10/2008
n-Hexane	<32	32	mg/kg	6/10/2008
Methylene chloride	<32	32	mg/kg	6/10/2008
Methyl ethyl ketone(2-butanone)	<160	160	mg/kg	6/10/2008
Methyl methacrylate	<32	32	mg/kg	6/10/2008
4-Methyl-2-pentanone	<160	160	mg/kg	6/10/2008
2-Nitropropane	<32	32	mg/kg	6/10/2008
Pentachloroethane	<32	32	mg/kg	6/10/2008
Propionitrile	<32	32	mg/kg	6/10/2008
Styrene	<32	32	mg/kg	6/10/2008
1,1,1,2-Tetrachloroethane	<32	32	mg/kg	6/10/2008
1,1,2,2-Tetrachloroethane	<32	32	mg/kg	6/10/2008
Tetrachloroethene	<32	32	mg/kg	6/10/2008
Toluene	<32	32	mg/kg	6/10/2008
1,2,4-Trichlorobenzene	<32	32	mg/kg	6/10/2008
1,1,1-Trichloroethane	<32	32	mg/kg	6/10/2008
1,1,2-Trichloroethane	<32	32	mg/kg	6/10/2008

EA GROUP

EAG Workorder: 0806-00115
EAG ID: 0806-00115-003
Client ID: ND-WL003-060408
Client Project: Norwood Drums

Matrix: Liquid
Analyst: REC

Date Sampled: 06/04/2008
Date Received: 06/06/2008

Parameter	Result	Reporting Limit	Units	Date Analyzed
Trichloroethene	<32	32	mg/kg	6/10/2008
Trichlorofluoromethane	<32	32	mg/kg	6/10/2008
1,2,3-Trichloropropane	<32	32	mg/kg	6/10/2008
1,1,2 Trichlorotrifluoroethane	<32	32	mg/kg	6/10/2008
1,2,4-Trimethylbenzene	<32	32	mg/kg	6/10/2008
Vinyl acetate	<32	32	mg/kg	6/10/2008
Vinyl chloride	<32	32	mg/kg	6/10/2008
Xylenes (total)	<32	32	mg/kg	6/10/2008

Surrogate	Percent Recovery	Recovery Limits
4-Bromofluorobenzene	129	(86 - 123)
1,2-Dichloroethane-d4	125	(77 - 121)
Toluene-d8	114	(82 - 128)

EA GROUP

EAG Workorder: 0806-00115
EAG ID: 0806-00115-006
Client ID: ND-WS001-060408
Client Project: Norwood Drums

Matrix: Solid
Analyst: REC

Date Sampled: 06/04/2008
Date Received: 06/06/2008

Parameter	Result	Reporting Limit	Units	Date Analyzed
Volatile Organic Compounds: SW846-8260A				
Acetone	<85	85	mg/kg	6/09/2008
Acrolein	<85	85	mg/kg	6/09/2008
Acrylonitrile	<85	85	mg/kg	6/09/2008
Benzene	<17	17	mg/kg	6/09/2008
Bromochloromethane	<17	17	mg/kg	6/09/2008
Bromodichloromethane	<17	17	mg/kg	6/09/2008
Bromoform	<17	17	mg/kg	6/09/2008
Bromomethane	<17	17	mg/kg	6/09/2008
Carbon disulfide	<17	17	mg/kg	6/09/2008
Carbon tetrachloride	<17	17	mg/kg	6/09/2008
Chlorobenzene	<17	17	mg/kg	6/09/2008
Chloroethane	<17	17	mg/kg	6/09/2008
Chloroform	<17	17	mg/kg	6/09/2008
Chloromethane	<17	17	mg/kg	6/09/2008
Dibromochloromethane	<17	17	mg/kg	6/09/2008
1,1-Dichloroethane	<17	17	mg/kg	6/09/2008
1,2-Dichloroethane	<17	17	mg/kg	6/09/2008
1,1-Dichloroethene	<17	17	mg/kg	6/09/2008
1,2-Dichloropropane	<17	17	mg/kg	6/09/2008
cis-1,2-Dichloroethene	<17	17	mg/kg	6/09/2008
trans-1,2-Dichloroethene	<17	17	mg/kg	6/09/2008
cis-1,3-Dichloropropene	<17	17	mg/kg	6/09/2008
trans-1,3-Dichloropropene	<17	17	mg/kg	6/09/2008
Ethylbenzene	<17	17	mg/kg	6/09/2008
2-Hexanone	<85	85	mg/kg	6/09/2008
n-Hexane	<17	17	mg/kg	6/09/2008
Methylene chloride	<17	17	mg/kg	6/09/2008
Methyl ethyl ketone(2-butanone)	<85	85	mg/kg	6/09/2008
Methyl methacrylate	<17	17	mg/kg	6/09/2008
4-Methyl-2-pentanone	<85	85	mg/kg	6/09/2008
2-Nitropropane	<17	17	mg/kg	6/09/2008
Pentachloroethane	<17	17	mg/kg	6/09/2008
Propionitrile	<17	17	mg/kg	6/09/2008
Styrene	<17	17	mg/kg	6/09/2008
1,1,1,2-Tetrachloroethane	<17	17	mg/kg	6/09/2008
1,1,2,2-Tetrachloroethane	<17	17	mg/kg	6/09/2008
Tetrachloroethene	<17	17	mg/kg	6/09/2008
Toluene	140	17	mg/kg	6/09/2008
1,2,4-Trichlorobenzene	<17	17	mg/kg	6/09/2008
1,1,1-Trichloroethane	<17	17	mg/kg	6/09/2008
1,1,2-Trichloroethane	<17	17	mg/kg	6/09/2008

EA GROUP

EAG Workorder: 0806-00115
EAG ID: 0806-00115-006
Client ID: ND-WS001-060408
Client Project: Norwood Drums

Matrix: Solid
Analyst: REC

Date Sampled: 06/04/2008
Date Received: 06/06/2008

Parameter	Result	Reporting Limit	Units	Date Analyzed
Trichloroethene	<17	17	mg/kg	6/09/2008
Trichlorofluoromethane	730	17	mg/kg	6/09/2008
1,2,3-Trichloropropane	<17	17	mg/kg	6/09/2008
1,1,2 Trichlorotrifluoroethane	<17	17	mg/kg	6/09/2008
1,2,4-Trimethylbenzene	<17	17	mg/kg	6/09/2008
Vinyl acetate	<17	17	mg/kg	6/09/2008
Vinyl chloride	<17	17	mg/kg	6/09/2008
Xylenes (total)	<17	17	mg/kg	6/09/2008

Surrogate	Percent Recovery	Recovery Limits
4-Bromofluorobenzene	87.2	(86 - 123)
1,2-Dichloroethane-d4	114	(77 - 121)
Toluene-d8	104	(82 - 128)

EA GROUP

EAG Workorder: 0806-00115
EAG ID: 0806-00115-007
Client ID: ND-WS001-060408D
Client Project: Norwood Drums

Matrix: Solid
Analyst: REC

Date Sampled: 06/04/2008
Date Received: 06/06/2008

Parameter	Result	Reporting Limit	Units	Date Analyzed
Volatile Organic Compounds: SW846-8260A				
Acetone	<120	120	mg/kg	6/09/2008
Acrolein	<120	120	mg/kg	6/09/2008
Acrylonitrile	<120	120	mg/kg	6/09/2008
Benzene	<24	24	mg/kg	6/09/2008
Bromochloromethane	<24	24	mg/kg	6/09/2008
Bromodichloromethane	<24	24	mg/kg	6/09/2008
Bromoform	<24	24	mg/kg	6/09/2008
Bromomethane	<24	24	mg/kg	6/09/2008
Carbon disulfide	<24	24	mg/kg	6/09/2008
Carbon tetrachloride	<24	24	mg/kg	6/09/2008
Chlorobenzene	<24	24	mg/kg	6/09/2008
Chloroethane	<24	24	mg/kg	6/09/2008
Chloroform	<24	24	mg/kg	6/09/2008
Chloromethane	<24	24	mg/kg	6/09/2008
Dibromochloromethane	<24	24	mg/kg	6/09/2008
1,1-Dichloroethane	<24	24	mg/kg	6/09/2008
1,2-Dichloroethane	<24	24	mg/kg	6/09/2008
1,1-Dichloroethene	<24	24	mg/kg	6/09/2008
1,2-Dichloropropane	<24	24	mg/kg	6/09/2008
cis-1,2-Dichloroethene	<24	24	mg/kg	6/09/2008
trans-1,2-Dichloroethene	<24	24	mg/kg	6/09/2008
cis-1,3-Dichloropropene	<24	24	mg/kg	6/09/2008
trans-1,3-Dichloropropene	<24	24	mg/kg	6/09/2008
Ethylbenzene	<24	24	mg/kg	6/09/2008
2-Hexanone	<120	120	mg/kg	6/09/2008
n-Hexane	<24	24	mg/kg	6/09/2008
Methylene chloride	<24	24	mg/kg	6/09/2008
Methyl ethyl ketone(2-butanone)	<120	120	mg/kg	6/09/2008
Methyl methacrylate	<24	24	mg/kg	6/09/2008
4-Methyl-2-pentanone	<120	120	mg/kg	6/09/2008
2-Nitropropane	<24	24	mg/kg	6/09/2008
Pentachloroethane	<24	24	mg/kg	6/09/2008
Propionitrile	<24	24	mg/kg	6/09/2008
Styrene	<24	24	mg/kg	6/09/2008
1,1,1,2-Tetrachloroethane	<24	24	mg/kg	6/09/2008
1,1,2,2-Tetrachloroethane	<24	24	mg/kg	6/09/2008
Tetrachloroethene	<24	24	mg/kg	6/09/2008
Toluene	190	24	mg/kg	6/09/2008
1,2,4-Trichlorobenzene	<24	24	mg/kg	6/09/2008
1,1,1-Trichloroethane	<24	24	mg/kg	6/09/2008
1,1,2-Trichloroethane	<24	24	mg/kg	6/09/2008

EA GROUP

EAG Workorder: 0806-00115
EAG ID: 0806-00115-007
Client ID: ND-WS001-060408D
Client Project: Norwood Drums

Matrix: Solid
Analyst: REC

Date Sampled: 06/04/2008
Date Received: 06/06/2008

Parameter	Result	Reporting Limit	Units	Date Analyzed
Trichloroethene	<24	24	mg/kg	6/09/2008
Trichlorofluoromethane	320	24	mg/kg	6/09/2008
1,2,3-Trichloropropane	<24	24	mg/kg	6/09/2008
1,1,2 Trichlorotrifluoroethane	<24	24	mg/kg	6/09/2008
1,2,4-Trimethylbenzene	<24	24	mg/kg	6/09/2008
inyl acetate	<24	24	mg/kg	6/09/2008
√inyl chloride	<24	24	mg/kg	6/09/2008
Xylenes (total)	<24	24	mg/kg	6/09/2008

Surrogate	Percent Recovery	Recovery Limits
4-Bromofluorobenzene	93.2	(86 - 123)
1,2-Dichloroethane-d4	115	(77 - 121)
Toluene-d8	107	(82 - 128)